

What is claimed is:

1 1. A weightlifting apparatus for supporting a dumbbell, the
2 apparatus comprising :
3 first and second side frames;
4 elevation adjustment means carried on the first and second side frames;
5 and
6 at least one dumbbell support coupled to the elevation adjustment
7 means for supporting a dumbbell in a plurality of different elevations.

1 2. The weightlifting apparatus of claim 1 wherein the dumbbell
2 support comprises:
3 an angularly adjustable, pivotal portion adapted for receiving and
4 supporting a dumbbell.

1 3. The weightlifting apparatus of claim 2 wherein the angular
2 adjustable, pivotal portion includes a dumbbell receiver for supporting the dumbbell.

1 4. The weightlifting apparatus of claim 3 further comprising:
2 a notch formed in the dumbbell receiver to facilitate access to the
3 dumbbell mounted on the angularly adjustable, pivotal portion.

1 5. The weightlifting apparatus of claim 3 wherein the dumbbell
2 receiver comprises:
3 a plate pivotally coupled to the crossbar mount, the plate including a
4 plurality of spaced apertures; and
5 a latch carried on the crossbar mount and releasably engagable with one
6 of the apertures to adjust the angular position of the plate with respect to the crossbar
7 mounting portion.

1 6. The weightlifting apparatus of claim 2 wherein the crossbar
2 mounting portion comprises:

3 a collar mountable over the crossbar.

1 7. The weightlifting apparatus of claim 1 further comprising:
2 a horizontal crossbar engaged with the elevation adjustment means, the
3 dumbbell supports mounted on the crossbar.

1 8. The weightlifting apparatus of claim 7 when the dumbbell
2 support comprises:
3 a crossbar mounting portion for movably adjusting the dumbbell
4 support along the crossbar.

1 9. The weightlifting apparatus of claim 8 further comprising:
2 means for latching the crossbar mounting portion to the crossbar in one
3 of a plurality of positions along the crossbar.

1 10. The weightlifting apparatus of claim 8 further comprising:
2 means for latching the crossbar mounting portion to the crossbar in a
3 plurality of discrete positions.

1 11. The weightlifting apparatus of claim 10 wherein the latching
2 means comprises:
3 a plurality of spaced apertures along the crossbar; and
4 a spring biased pin carried on the crossbar mounting portion releasably
5 engagable with one of the apertures in the crossbar.

1 12. The weightlifting apparatus of claim 7 wherein the dumbbell
2 support comprises two dumbbell supports.

1 13. The weightlifting apparatus of claim 1 wherein the elevation
2 adjustment means comprises:
3 a threaded screw supported on each of the first and second side frames;

4 a rotative drive coupled to both screws for bi-directionally rotating both
5 screws; and
6 the dumbbell support coupled to each of the screws for elevational
7 movement.

1 14. The weightlifting apparatus of claim 13 further comprised:
2 a horizontal crossbar movably coupled to each screw, the dumbbell
3 support carried on the crossbar.

1 15. The weightlifting apparatus of claim 13 wherein the drive
2 comprises:
3 a electric motor mounted to the first and second side frames, the motor
4 the electric motor having an output shaft; and
5 an elongated member extending to and coupled to each screw and to
6 the output shaft for transmitting rotation of the motor output shaft to each of the
7 screws.

1 16. The weightlifting apparatus of claim 13 further comprising:
2 a rotative drive coupled to both screws for bi-directionally rotating both
3 screws, the drive including:
4 a first rotatable member;
5 second and third rotatable members each fixedly coupled to one of the
6 screws; and
7 an elongated member extending to and coupled to each of the first,
8 second and third rotatable members for transmitting rotation of the drive to each of
9 the screws.

1 17. The weightlifting apparatus of claim 16 wherein:
2 the first, second and third rotatable members include teeth; and
3 the elongated member includes teeth meshingly engagable with the
4 teeth on the first, second and third rotatable members.

1 18. The weightlifting apparatus of claim 16 wherein the drive
2 comprises:
3 a rotatable shaft coupled to the first rotative member such that rotation
4 of the shaft rotates the first rotative member.

1 19. A weightlifting apparatus for supporting a dumbbell, the
2 apparatus comprising:
3 first and second side frames;
4 a horizontal crossbar extending between the first and second side
5 frames;
6 a pair of dumbbell supports movably mounted on the crossbar; and
7 a latch on each dumbbell support for releasably latching each dumbbell
8 support in a horizontally adjustable position along the crossbar.

1 20. The weightlifting apparatus of claim 19 wherein the latch
2 comprises:
3 a plurality of spaced apertures formed along the crossbar; and
4 a latch pin carried on the each dumbbell support, the pin releasably
5 engagable with one of the apertures in the crossbar to releasably latch the dumbbell
6 support in a selected horizontally adjustable position along the crossbar.

1 21. The weightlifting apparatus of claim 20 further comprising:
2 a pair of dumbbell supports movably mounted on the crossbar; and
3 a latch on each dumbbell support for releasably latching each dumbbell
4 support in a horizontally adjustable position along the crossbar.

1 22. The weightlifting apparatus of claim 21 further comprising:
2 the crossbar mounting portion carried on each dumbbell support and
3 movable along the crossbar;

4 an angularly adjustable, pivotal portion coupled to the crossbar
5 mounting portion, for receiving and supporting a dumbbell;
6 a dumbbell receiver carried on the pivotal portion; and
7 means for locking the dumbbell receiver in one of a plurality of angular
8 positions with respect to the crossbar mounting portion.

1 23. A weightlifting apparatus for supporting a dumbbell, the
2 apparatus comprising:
3 first and second side frames;
4 a horizontal crossbar extending between the first and second side
5 frames;
6 a pair of dumbbell supports movably mounted on the crossbar;
7 the crossbar mounting portion carried on each dumbbell support and
8 movable along the crossbar;
9 an angularly adjustable, pivotal portion coupled to the crossbar
10 mounting portion, for receiving and supporting a dumbbell;
11 a dumbbell receiver carried on the pivotal portion; and
12 means for locking the dumbbell receiver in one of a plurality of angular
13 positions with respect to the crossbar mounting portion.

1 24. A weightlifting apparatus for supporting a dumbbell, the
2 apparatus comprising:
3 first and second side frames;
4 a crossbar extending horizontally between the first and second side
5 frames;
6 elevation adjustment means carried on the first and second side frames
7 and coupled to the crossbar for moving and supporting the crossbar in a plurality of
8 different elevations;
9 at least one dumbbell support coupled to the crossbar for supporting a
10 dumbbell; and
11 a foot rest disposed within the first and second side frames.

- 1 25. The weightlifting apparatus of claim 24 wherein the foot rest
2 comprises:
3 a support frame providing vertical and for/aft adjustable positioning of
4 a foot support member.